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REMARKS

Claims 1-20 are pending. Claims 1-8, 11, 13 and 15-19 are withdrawn from consideration. Claims 9, 10, 12, 14 and 20 are under examination. Claims 9, 10, 12, 13 and 20 have been amended. New claims 21-42 have been added. Support for the amendment and new claims can be found throughout the specification and the claims as filed. In particular, support for the amendment to claim 9 can be found, for example, on page 5, line 21, to page 6, line 29. Support for the amendment to claims 12, 13 and 20 can be found, for example, on page 9, lines 5-15. Support for new claims 21-24 can be found, for example, in original claims 12 and 13 and on page 9, lines 5-15. Support for new claims 25-42 can be found, for example, in original claims 9-11, 14 and 15. Accordingly, these amendments and new claims do not raise an issue of new matter and entry thereof is respectfully requested.

Regarding the Election of Species

Regarding the election of species, Applicant understands that the election of a single disclosed species is a provisional election and that if no prior art is found which anticipates or renders obvious the elected species, search of the claims will be extended to the extent necessary to determine patentability of the generic claims.

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Regarding the Information Disclosure Statement

Regarding references 91 and 92 on the previously filed Information Disclosure Statement, Applicant submits a new form 1449 listing references 91 and 92 along with a copy of these references, as requested by the Examiner.

Rejection Under 35 U.S.C. § 112, Second Paragraph

The rejection of claims 9, 10 and 14 under 35 U.S.C. § 112, second paragraph, as allegedly indefinite is respectfully traversed. With regard to the recitation of "a modification thereof," claims 9 and 10 have been amended to indicate that the modification is of the encoding nucleic acid. Applicant submits that these claims are clear and definite and respectfully requests that this rejection be withdrawn.

Rejections Under 35 U.S.C. § 112, First Paragraph

The rejection of claims 9, 10, 12, 14 and 20 under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement is respectfully traversed. Applicant maintains that the specification provides sufficient description and guidance to enable the claimed invention.

Applicant draws the Examiner's attention to new claims 25 and 26, which are directed to a nucleic acid encoding the amino acid sequence referenced as SEQ ID NO:2 and the nucleotide sequence referenced as SEQ ID NO:1. Applicant respectfully

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submits that these claims are enabled in light of the comments in the Office Action regarding the enablement of these claims.

With regard to the term "modification" recited in claims 9 and 10, the specification teaches that a modification of a nucleic acid can include one or several nucleotide additions, deletions or substitutions with respect to a reference sequence, including a substantially the same nucleotide sequence that can hybridize under moderately stringent or higher stringency conditions (page 9, lines 16-30). The specification also teaches various stringency conditions (page 24, line 15, to page 25, line 18). Therefore, Applicant respectfully submits that the specification provides sufficient description and guidance to enable the claimed nucleic acid molecules and modifications thereof.

Applicant respectfully disagrees with the assertion on page 3 of the Office Action that one skilled in the art would not be able to determine which nucleic acid sequences encompassed by the claims would be useful for detection of SEQ ID NO:1, other than SEQ ID NO:1. Applicant respectfully submits that one skilled in the art, based on the teachings in the specification and what was well known to those skilled in the art, would have readily been able to determine appropriate nucleic acid sequences suitable for detection of SEQ ID NO:1. For example, the specification teaches a variety of methods for detecting a claimed nucleic acid molecule (page 28, line 22, to page 30, line 5). One skilled in the art could have readily selected suitable

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nucleic acid sequences for detection of SEQ ID NO:1 without undue experimentation.

With regard to the structural and functional properties of the polypeptide, claim 9 has been amended to indicate that the Nope polypeptide encoded by the claimed nucleic acid molecule has a Nope polypeptide activity. The specification teaches various Nope polypeptide activities (page 5, line 21, to page 6, line 29; page 18, lines 3-22). The claims are thus directed to nucleic acids encoding an active Nope polypeptide.

With regard to claims 12 and 20 and the term "comprising," these claims have been amended to closed form by reciting "consisting of." Regarding the assertion in the Office Action on page 5 that the specification does not appear to provide sufficient guidance as to which subsequence of SEQ ID NO:1 would be useful in a detection assay, Applicant maintains, as discussed above, that one skilled in the art, based on the teachings in the specification and what was well known to those skilled in the art, would have readily been able to select an oligonucleotide consisting of at least 300 contiguous nucleotides of SEQ ID NO:1 useful in a detection assay. The assertion that undue experimentation would be required to determine subsequences of SEQ ID NO:1 that would have the function of the full length molecule is not relevant since the oligonucleotides do not need to encode the function of the full length molecule for the purposes of detecting the full length molecule. Methods for using such oligonucleotides for the detection of a Nope nucleic acid sequence are well known in the art and are taught in the

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specification (see, for example, page 26, lines 6-16, and page 28, line 8, to page 30, line 5).

Applicant maintains that the specification provides sufficient description and guidance to enable the claimed nucleic acid molecules. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

The rejection of claims 9, 10, 12, 14 and 20 under 35 U.S.C. § 112, first paragraph, as allegedly lacking sufficient written description is respectfully traversed. Applicant maintains that the specification provides sufficient description and guidance to convey to one skilled in the art that Applicant was in possession of the claimed invention at the time the application was filed.

Applicant draws the Examiner's attention to new claims 25 and 26, which are directed to a nucleic acid encoding the amino acid sequence referenced as SEQ ID NO:2 and the nucleotide sequence referenced as SEQ ID NO:1. In light of the comments in the Office Action, Applicant respectfully submits that the specification provides sufficient written description for these claims.

As discussed above with regard to the term "modification" recited in claims 9 and 10, the specification teaches that a modification of a nucleic acid can include one or several nucleotide additions, deletions or substitutions with respect to a reference sequence, including a substantially the

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same nucleotide sequence that can hybridize under moderately stringent or higher stringency conditions (page 9, lines 16-30). The specification also teaches various stringency conditions (page 24, line 15, to page 25, line 18). Therefore, Applicant respectfully submits that the specification provides sufficient written description for the claimed nucleic acid molecules and modifications thereof. Applicant further submits that the specification provides sufficient written description for the claimed oligonucleotide consisting of at least 300 contiguous nucleotides of SEQ ID NO:1, as well as kits containing such oligonucleotides as taught, for example, on page 9, lines 5-15, and page 30, lines 6-24.

Applicant maintains that the specification provides sufficient written description for the claimed nucleic acid molecules. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

Rejections Under 35 U.S.C. § 102

The rejection of claims 9, 10 and 12 under 35 U.S.C. § 102(a) as allegedly anticipated by Salbaum and Kappen, Genomics 64:15-23 (2000), is respectfully traversed. Applicant maintains that the claimed nucleic acid molecules are novel over Salbaum and Kappen.

Applicant submits that the claimed nucleic acid molecules encoding Nope polypeptide were invented prior to the effective date of Salbaum and Kappen and of GenBank accession No.

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AF176694. Submitted herewith is a Declaration by Dr. Salbaum indicating that he invented the claimed nucleic acid molecules encoding Nope polypeptide prior to the effective date of these references. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

The rejection of claim 12 under 35 U.S.C. § 102(b) as allegedly anticipated by Davies, GenBank Accession No. W33247 (1997), is respectfully traversed. Applicant submits that the claimed Nope oligonucleotide is novel over Davies.

Claim 12 has been amended to recite a Nope oligonucleotide consisting of 300 to 350 contiguous nucleotides of SEQ ID NO:1. Applicant submits that Davies does not teach an oligonucleotide consisting of 300 to 350 contiguous nucleotides. Accordingly, Davies cannot anticipate claim 12. Therefore, Applicant respectfully requests that this rejection be withdrawn.

Rejections Under 35 U.S.C. § 103

The rejection of claim 14 under 35 U.S.C. § 103 as allegedly obvious over Salbaum and Kappen, *supra*, in view of Darnell et al., Molecular Cell Biology, pp. 248-255, W. H. Freeman & Co., New York (1986), is respectfully traversed. Applicant submits that the claimed vector of claim 14 is unobvious over the cited references.

As discussed above and indicated in the attached Declaration, the claimed nucleic acids encoding Nope polypeptide

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were invented prior to the effective date of Salbaum and Kappen. Therefore, the claimed vector containing a Nope nucleotide sequence is unobvious over Salbaum and Kappen, alone or in combination with Darnell. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

The rejection of claim 20 under 35 U.S.C. § 103 as allegedly obvious over Salbaum and Kappen, *supra*, or Davies, *supra*, in view of Gimeno et al., U.S. Patent No. 6,399,760, is respectfully traversed. Applicant respectfully submits that the claimed kit is unobvious over Salbaum and Kappen or Davies, alone or in combination with Gimeno et al.

With regard to Salbaum and Kappen and as discussed above, the claimed nucleic acids encoding Nope polypeptide was invented prior to the effective date of Salbaum and Kappen. Therefore, the claimed kit containing a Nope oligonucleotide consisting of 300 to 350 contiguous nucleotides of SEQ ID NO:1 is unobvious over Salbaum and Kappen, alone or in combination with Gimeno et al. With regard to Davies and as discussed above, Davies does not teach or suggest an oligonucleotide consisting of 300 to 350 contiguous nucleotides of SEQ ID NO:1. Therefore, the claimed kit containing one or more such oligonucleotides is unobvious over Davies, alone or in combination with Gimeno et al. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

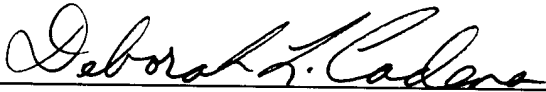
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CONCLUSION

In light of the amendments and remarks herein,
Applicant submits that the claims are now in condition for
allowance and respectfully requests a notice to this effect. The
Examiner is invited to call the undersigned agent or Cathryn
Campbell if there are any questions.

Respectfully submitted,

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Date


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